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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,087	10/02/2003	Peter G. Amos	003-089	7762

36844 7590 05/13/2005

CERMAK & KENEALY LLP  
515 E. BRADDOCK RD  
ALEXANDRIA, VA 22314

EXAMINER
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PATEL, VISHAL A

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/676,087

**Applicant(s)**

AMOS ET AL.

**Examiner**

Vishal Patel

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 7,9,11 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,10,12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 10, 12 and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Paprotna et al (US. 6,733,234).

Regarding claims 1-4: Paprotna discloses a seal assembly comprising a layered structured including a first layer of base material (26), a second layer of thermal insulating material on top of the first layer (48), a third layer (50) of a base material on top of the layer of thermal insulation, a spring side support (40 of figure 3) and the layered structure is connected on two sides of the spring side support (the side support connects the layered structure at two locations 44, one being adjacent to an inner side and the other being adjacent to an outer side). The layer of thermal insulating material comprises a woven insulating material (48). The third layer of the seal assembly comprises oxidation resistant material (material of 50 is oxidation resistant because 50 can be made of metals, composites, ceramics or combination thereof).

A connector plate having an inner connector band and an outer connector band (inner side of 26) and the layered structure is arranged within the connector plate with the first layer comprising the inner connector and the third layer comprises (outer side of 48) the outer connector band. The connector plate is connected on two sides of the spring side support

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Regarding claims 12 and 14-17: The seal assembly comprises combustor liners (10 and 12), a combustor liner seal between the combustion liner segments (seal between 10 and 12) and the combustor liner seal comprises the layered structure (the seal is formed by the layered structure).

Regarding claims 10 and 20: Cooling holes arranged within the spring side support (cooling holes formed in the thermal insulating material which is woven).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6, 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paprotna in view of Kalkbrenner (US. 3,975,114).

Paprotna discloses the invention substantially as claimed above but fails to disclose that the first layer is welded to the third layer. Kalkbrenner teaches to have a seal assembly having first layer, a second layer and a third layer. The first layer is welded (welds 54) to the third layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the first layer of Paprotna to be welded to the third layer as taught by Kalkbrenner, to fasten to layers to each other (column 3, line 1 of Kalkbrenner).

Regarding claims 6 and 8:

Paprotna discloses the invention substantially as claimed above but fails to disclose that all layers and the spring support are connected by a weld. Kalkbrenner discloses to have a seal

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assembly having multiple layers, a spring support (top layer) and a bottom layers of the multiple layers are connected by a weld (each of the four layers showed in figure 4 are connected by the welds 54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the spring support to be connected to the third layer as taught by Kalkbrenner, to provided a fastened structure (column 3, line 1 of Kalkbrenner).

*Response to Arguments*

5. Applicant's arguments with respect to claims 1-6, 8, 10, 12 and 14-20 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (571) 272-7060. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford, can be reached on (571)272-7049.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

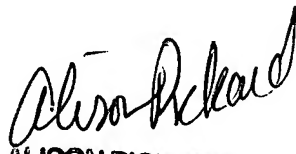
**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:** 703-872-9326, for formal communications for entry before Final action: or,  
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP  
April 29, 2005

  
**ALISON PICKARD**  
**PRIMARY EXAMINER**

~~Heather Shackelford~~  
Supervisory Patent Examiner  
Tech. Center 3600